

WHAT IS CLAIMED IS:

1. A laundry detergent product capable of removing malodor from laundered items during an automatic laundry washing process, comprising:
 - (a) cyclodextrin granules formed from a mixture of cyclodextrin powder, an inorganic compound and an aqueous medium, said cyclodextrin granules having a particle size in a range of from about 100 microns to about 1200 microns, said
 - (b) a laundry detergent composition including a surfactant, a builder and an enzyme; and
 - (c) said laundry detergent product being adapted to readily dissolve and disperse said cyclodextrin granules into a wash solution when said laundry detergent product is used in said automatic laundry washing process, and wherein said cyclodextrin, when released into said wash solution, has an odor loading factor of at least about 50.
2. The laundry detergent product according to claim 1, wherein said cyclodextrin granules are formed using a granulating process selected from the group consisting of agglomeration, spray-drying, extrusion, fluid-bed agglomeration, roll-compaction, freeze-drying, and tableting.
3. The laundry detergent product according to claim 1, wherein said inorganic compound is selected from the group consisting of sulfates, carbonates, silicates, aluminosilicates, phosphates, silica, citrates, perborate, talc and mixtures thereof.
4. The laundry detergent product according to claim 3, wherein said inorganic compound is an aluminosilicate ion exchange material of the formula,
$$Mm/n[(AlO_2)m(SiO_2)y] \cdot xH_2O$$
where n is the valence of the cation M, x is the number of water molecules per unit cell, m and y are the total number of tetrahedra per unit cell, and y/m is 1 to 100, and wherein M is selected from the group consisting of sodium, potassium, magnesium, and calcium.
5. The laundry detergent product according to claim 4, wherein said inorganic compound is zeolite.

6. The laundry detergent product according to claim 1, wherein said inorganic compound is a hygroscopic powder selected from the group consisting of polymers or copolymers of acrylic and maleic acid, polyvinyl pyrrolidone, polyvinyl pyridine N oxide, carboxymethyl cellulose, polyaspartate and starch, and mixtures thereof.
7. The laundry detergent product according to claim 1, wherein said cyclodextrin granules have a size in a range of from about 200 microns to about 800 microns.
8. The laundry detergent product according to claim 1, wherein said cyclodextrin granules have a loading factor of at least about 65.
9. The laundry detergent product according to claim 1, wherein said cyclodextrin powder and said inorganic compound are mixed in a weight ratio in a range of from about 10:90 to about 90:10 respectively.
10. A non-particulate laundry detergent product according to claim 1.
11. The non-particulate laundry detergent product according to claim 10, including a core formed by compacting a particulate detergent product of claim 1 to a density of at least about 1000 g/l, said particulate detergent product having a bulk density in a range of from about 600 g/l to about 850 g/l.
12. A process for forming a free flowing cyclodextrin capable of removing malodor from laundered items during automatic laundry washing when said cyclodextrin is incorporated into a laundry detergent composition, comprising the steps of:
- (a) forming cyclodextrin granules from a mixture of cyclodextrin powder, an inorganic compound selected from the group consisting of sulfates, carbonates, silicates, aluminosilicates, phosphates, silica, citrates, perborate, talc and mixtures thereof, and an aqueous medium;
 - (b) particulizing said cyclodextrin granules to a particle size in a range of from about 100 microns to about 1200 microns; and
 - (c) forming selected cyclodextrin granules that have an odor loading factor of at least about 50 when said cyclodextrin granules are dispersed in a wash solution

during an automatic laundry washing process, after said cyclodextrin granules are ad-mixed into a laundry detergent composition.

13. A process for forming a free flowing cyclodextrin in a granular form, comprising the steps of:

- a) admixing cyclodextrin and an inorganic compound to form a mixture;
- b) agglomerating said mixture in an aqueous medium to form cyclodextrin agglomerate; and
- c) drying said cyclodextrin agglomerate.

14. The process according to claim 13, wherein said step of admixing includes mixing and granulating said cyclodextrin and said inorganic compound in one or more of a high-speed mixer and granulator.

15. The process according to claim 13, wherein said step of agglomerating includes forming a cyclodextrin-inorganic compound pre-mix with water.

16. A process for forming a free flowing cyclodextrin in a granular form for being admixable into a granular detergent composition, comprising the steps of:

- (a) continuously mixing a detergent surfactant paste and dry starting detergent material including cyclodextrin in a powder form, in a high speed mixer or densifier, to obtain cyclodextrin-detergent agglomerates, the ratio of the surfactant paste to the dry material including cyclodextrin being from about 1:10 to about 10:1;
- (b) mixing cyclodextrin-detergent agglomerates in a moderate speed mixer or densifier, to densify the agglomerates to a density in a range of from about 500 grams/L to about 1000 grams/L; and
- (c) drying said cyclodextrin-detergent agglomerates to form a free-flowing cyclodextrin in a granular form capable of being ad-mixed in a granular detergent composition.

17. A process for removing malodor from laundered items during automatic laundry washing, comprising the steps of:

- (a) providing a laundry detergent composition containing laundry detergent ingredients and cyclodextrin, said cyclodextrin being in a granular form, said cyclodextrin being complexed with an inorganic compound selected from the group consisting of sulfates, carbonates, silicates, aluminosilicates, phosphates, silica, citrates, perborate, talc and mixtures thereof, and said cyclodextrin having a loading factor of at least about 50; and
- (b) washing odor containing laundry items with said laundry detergent composition.

18. A process for removing malodor from laundered items during automatic laundry washing, comprising the steps of:

- (a) providing a cyclodextrin granular agglomerate prepared by:
 - (i) admixing said cyclodextrin and an inorganic compound to form a mixture;
 - (ii) agglomerating said mixture in an aqueous medium to form a cyclodextrin agglomerate; and
 - (iii) drying said cyclodextrin agglomerate; and
- (b) incorporating said cyclodextrin agglomerate into a particulate laundry detergent composition in a weight ratio in a range of from about 0.1:99.9 to about 10:90, cyclodextrin agglomerate to particulate laundry detergent composition.

19. The process according to claim 18, wherein said aqueous medium is a detergent surfactant paste, and wherein said detergent surfactant paste and said cyclodextrin-inorganic mixture is pre-mixed before agglomerating, in a weight ratio in a range of from about 1:10 to about 10:1 respectively.

20. A method of using cyclodextrin in a laundry detergent composition for removing malodor from laundered items during automatic laundry washing, comprising the steps of:

- (a) forming cyclodextrin granules from a mixture of cyclodextrin powder, an inorganic compound selected from the group consisting of sulfates, carbonates, silicates, aluminosilicates, phosphates, silica, citrates, perborate, talc and mixtures thereof, and an aqueous medium;
- (b) particulizing said cyclodextrin granules to a particle size in a range of from about 100 microns to about 1200 microns;

- (c) ad-mixing said cyclodextrin granules in a laundry detergent composition, in a range of from about 0.1% to about 50% by weight cyclodextrin granules; and
- (d) forming a laundry detergent product having cyclodextrin granules that have an odor loading factor of at least about 50 when said cyclodextrin granules are dispersed in a wash solution during an automatic laundry washing process.

10087316.030102